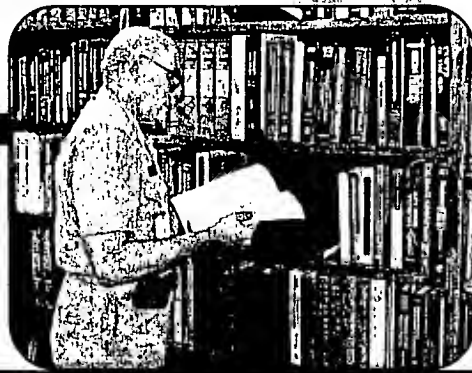


2001

Armed Forces Institute of Pathology

ANNUAL REPORT





Adrienne Noe, PhD
Director
Date of Appointment — September 1995



NATIONAL MUSEUM OF HEALTH AND MEDICINE, AFIP

MISSION AND ACTIVITIES

The NMHM promotes understanding of medicine, past, present, and future, with a special emphasis on American military medicine. It inspires interest in personal and public health. As the nation's museum of health and medicine since 1862, we aggressively identify, collect, and preserve important resources to achieve a broad agenda of innovative exhibitions, educational programs, and scientific, historical, and medical investigations.

To achieve this, we promote the responsible use of the nation's National Historic Landmark collection by continuing to catalog the collections to record detailed information about the holdings and edit records to make databases available for the Internet, which will allow the collection to be more accessible to researchers. We are continuing to cultivate ties with professional medical societies and with the Department of Defense to assist in collecting artifacts significant to the history of the practice of medicine and the evolution of medical technology, emphasizing military medicine. Finally, we are continuing to collect, preserve, and interpret modern examples of significant medical technology to document the history of the practice of military medicine and the evolution of medical technology to ensure the continued development of the National Museum of Health and Medicine, AFIP, as a national and international resource for the military medical community, professional health care workers, and the general public.

In so doing, we emphasize the Museum's focus on critical public and military health issues, the importance of the Museum as a bridge between biomedicine and the general public, the Museum's role in helping to recruit the health professionals of tomorrow, and the Museum's research programs in medical medicine, medical imaging, and other areas.

ORGANIZATION

The Museum is organized into 3 areas: Office of the Director, Public Programs and Exhibitions, and Collections and Research

OFFICE OF THE DIRECTOR

STAFF

- Adrienne Noe, PhD, Director
- Donna R. White, Administrator
- Steven Solomon, Public Affairs
- (D) Erin Roy, Public Affairs Assistant
- Theresa Butler, Staff Assistant
- Cynthia Muldrow, Administrative Support Assistant
- (A) Rachel Coker, Public Affairs Assistant
- (D) Victoria Cosner, Special Events and Facilities

- (A) Maurice Young, Special Events and Facilities
- (A) Shelly Currie, Visitor Services Representative
- Nicole Gunter, Visitor Services Representative
- Stacie Bland, Visitor Services Representative
- Melba Stewart, Visitor Services Representative

The Office of the Director oversees the general activities and governance of all aspects of the Museum and provides policy, technical, and scientific direction. This office directs all activities for the site, facility, and programs of the Museum, as its activities evolve. Activities handled within the office are external and internal relations, governmental affairs, press and public relations, and institutional development. The office works with print and broadcast media, congressional offices, and local, national, and community organizations to encourage contact with the AFIP's National Museum of Health and Medicine. The administrative support staff continue to improve the quality of support provided to the departments within the Museum. This administrative group provides a variety of management services essential to the operation of the Museum in the areas of budgeting, manpower/personnel, contract administration, and organizational management. The office provides general supervision of the Office of Public Affairs, the Division of Programs and Exhibitions, and the Division of Collections and Research. The Office of the Director communicates and coordinates with the American Registry of Pathology (PL94-361) and numerous public and private organizations for institutional development. The Director of the National Museum of Health and Medicine is a member of the AFIP Executive Committee and an Associate Director of the AFIP.

FACILITIES AND SPECIAL EVENTS

The Museum's Facilities and Special Events Department, in conjunction with the AFIP Directorate of Logistics, offers support and consultation to the National Museum of Health and Medicine (NMHM) in the following areas: physical security, storage, movement, and maintenance; repair and accountability of materials; housekeeping; exhibit upkeep and maintenance; and waste collection and disposal. It also notifies the Provost Marshal of Museum visitation onto the Walter Reed Army Medical Post. This department serves as NMHM liaison with the AFIP Office of Safety Management; maintains an inventory of all hazardous chemicals located within the Museum; serves as a member on many safety-related committees; and investigates safety issues concerning staff and visitors.

During 2001, the Facilities Department:

1. Assisted in disassembling temporary exhibits
2. Repaired and painted exhibit space for new exhibits
3. Renovated assigned space for a future Museum gift shop
4. Prepared service requests to the AFIP Logistics to insure that the Museum met safety and fire code regulations

Special Events Branch: This branch supports the NMHM in its mission to serve the Armed Forces Institute of Pathology, Walter Reed Army Medical Center, and the surrounding community by hosting and scheduling events such as the Annual National Student Leadership Conference, Foreign Joint NCO Association Annual Meeting, DoD Global Emerging Infections Systems Reception, Cameroon American Medical Association Conference, the Department of Medical Education's Medical Education Course, and the very prestigious Annual Ash Lecture.

The Special Events Branch of the Facilities Department has written an SOP for Museum meetings and receptions, which is given to the point of contact for the event. This office staffs and secures each event with visitor service representatives who are trained in the art of customer service, and offers a list of specialty caterers (DoD certified) familiar with the policy and procedures of the Museum. The Special Events Branch will also assist in supplying the presenters with their audio-visual needs.

During 2001, Special Events hosted 5 major events, totaling 1,535 participants in all.

PUBLIC AFFAIRS

During 2001, the Museum's Public Affairs Office continued marketing efforts and strengthened relationships within the business, museum, and tourism communities to increase awareness of the Museum throughout the Washington, DC, metropolitan area, and among tourism and military audiences. There are various community organizations in the area, and the Museum maintains a relationship and cultivates ties with as many area grassroots and cultural-based organizations as possible, in order to better position itself as a significant historical, community, and cultural attraction.

The Museum remained an active member of the DC Heritage Tourism Coalition, a consortium of more than 80 cultural and community organizations in Washington, DC, with a common goal to strengthen the image and the economy of the District of Columbia by engaging visitors in the diverse heritage of the city beyond the National Mall and monuments. The Museum received prominent recognition in the DC Heritage Tourism Coalition's publication, which provides an inventory of all DC cultural attractions by neighborhood and theme. The Museum benefits from other efforts organized through the DC Heritage Tourism Coalition, such as collaborative marketing materials, a joint product-licensing program, and a neighborhood heritage trail tour along the Georgia Avenue corridor.

The Museum also increased its ties with the DC Convention and Visitors Association, the District of Columbia Chamber of Commerce, and the Historical Society of Washington, DC.

The Museum remained a designated site on the Civil War Discovery Trail, which was named 1 of 16 National Millennium Trails in the United States by the White House. As a result, the Museum received recognition in marketing and promotional materials produced by the Civil War Trust, at no cost.

Marketing:

Working closely with the Museum's Public Programming Department, Public Affairs placed an emphasis on promoting programs and workshops to the local community to raise awareness of the Museum's educational offerings and to increase program attendance.

Print advertisements for the Museum and its exhibits and programs appeared in:

Families Magazine (monthly circulation: 100,000) distributed in the Washington, DC, area to public and private schools, libraries, Barnes and Noble, hospitals, doctors' offices, Fuddruckers, Zainy Brainy, etc.

Museums Washington Magazine (quarterly circulation: 150,000) distributed to concierges and in rooms at more than 80 hotels in the Washington, DC, area.

Washington Flyer (bimonthly circulation: 180,000) distributed at Ronald Regan National and Dulles International Airports.

Where Magazine (monthly circulation: 100,000) distributed to 128 hotels in Washington, DC, Virginia, and Maryland, such as Four Seasons Hotel, and Hay-Adams Hotel, and more than 30 embassies.

As an element of the AFIP, the Museum also reached the local military community through print advertisements in the 9 newspapers of Comprint Military Publications, distributed at the government installations within the National Capital region: *Pentagram* (weekly circulation: 27,000); *The Beam* (weekly circulation: 15,000); *The Journal* (weekly circulation: 10,000); *Henderson Hall News* (weekly circulation: 5,500); *Gazette* (weekly circulation: 37,000); *Stripe* (weekly circulation: 10,000); *Standard* (weekly circulation: 6,000); *Trident* (weekly circulation: 11,000); and *Sea Services Weekly* (weekly circulation: 10,000), reaching a combined circulation of more than 130,000.

A special effort was made during 2001 to promote "The Changing Face of Women's Health," an exhibition devoted exclusively to women's health issues, with interactive and multimedia techniques, companion programs, educator outreach materials, and a complementary Web site— www.whealth.com. WUSA-TV Channel 9 produced and broadcast :30- and :15-second "commercials" that ran at will and Bonneville International Corporation (radio stations WGMS-FM, WTOP-FM and AM, and WWZZ-FM) produced and broadcast a spot 676 times – all at no charge to the Museum. There was also significant follow-up coverage of the exhibit's grand opening gala, which involved coordination with personnel in the DoD; Army, Navy, and Air Force; the US Surgeon General, etc.

Media Coverage:

The Museum increased distribution of press releases to the media in 2001, resulting in increased media exposure. More than 250 stories and news brief items were printed in 2001, in publications with a combined circulation of 21.7 million. (Source: Bacon's Information Clip Review.) This coverage appeared in local, national, and international publications, as well as on TV and radio stations. Some highlights are:

"Make no bones about it, you'll leave this museum thankful that, despite the mistakes of the modern medical world, we have come this far. The very existence of the National Museum of Health and Medicine has been instrumental in the evolution of medicine as we know it today."

— *Washington Woman*, December 2001

"Best Museums Outside the Mall: ... medical mavens can examine the authentic anatomical displays at the National Museum of Health and Medicine, including a smoker's blackened lung, a touchable human brain, and fragments of Lincoln's skull."

— *Cooking Light*, October 2001

"The museum isn't big, but it's informative, with a fascinating exhibit on military medicine during the Korean War and fragments of Abraham Lincoln's skull on display. Particularly interesting: the Civil War wounds exhibit."

— Scripps Howard News Service, 9/9/2001

"In an exhibit titled 'Blood, Sweat, and Saline: Combat Medicine in the Korean Conflict,' the National Museum of Health and Medicine (www.natmedmuse.afip), in Washington, DC, shows how military nurses, medics, and surgeons struggled to make the art of healing keep pace with never-ending advances in the art of killing...The National Museum of Health and Medicine is an element of the Armed Forces Institute of Pathology."

— *American Heritage*, September 2001

"What do Abraham Lincoln, General Daniel Sickles, and Private W.F. Faucette have in common? The answer is: besides all connecting with a certain destiny at Gettysburg, parts of their bodies also reside at the National Museum of Health and Medicine in Washington, DC"

— *The Gettysburg Experience*, August 2001

"The most visited exhibit at Washington's National Museum of Health and Medicine is that of the shattered leg bones of a Civil War general. The display was also popular with the leg's owner, Union Maj. Gen. Daniel E. Sickles, who visited it for years on the anniversary of the amputation, July 2, 1863."

— *Washington Post*, 7/12/01

"... older kids and adults will be fascinated. Displays include the bullet that killed President Lincoln, and the probe used to find it, a spinal-cord section with vertebrae from the spine of John Wilkes Booth, and the world's most comprehensive collection of microscopes."

— *Ladies' Home Journal*, May 2001

"There's no other museum in our nation's Capital quite like it. Perhaps maybe the world... Many visitors walk away from the center awestruck after viewing its comprehensive anatomical collection. After all, every bone or organ displayed in the museum once was part of a breathing human being."

— *Commuter Weekly*, 4/22/01

"Ranging from fun to funky, these alternative museums offer something-for-everyone variety. Students at the health and medicine museum were awed by the sight of a life mask of Abraham Lincoln, the assassin's bullet that killed him and seven tiny fragments that the slug dislodged from his skull."

— Asbury Park Press and *The Home News*, 3/25/01

"Many guidebooks suggest travelers set aside a week to see the Smithsonian. Rare is the guidebook that suggests another hour be set aside to see the giant hairball, gargantuan obstructed colon or severed, elephantiasis-engorged leg at the nearby National Museum of Health & Medicine."

— *Boston Herald*, 2/11/01

"Barbie is the impossible ideal. Many women secretly have known this since childhood, but at the exhibit 'The Changing Face of Women's Health' at the National Museum of Health and Medicine, it is spelled out in large display type: Barbie, if she were real, would measure 38-18-28."

— *Washington Times*, 2/11/01

"Filled with fascinating — and decidedly gross — artifacts, displays and items include a lung-comparison area where you can check out the differences in the lungs of a smoker, a coal miner and a city dweller; a human brain you can touch and a giant hairball in the shape of the human stomach it came from."

— *Baltimore Sun*, 2/1/01

"Officials at the National Museum of Health and Medicine in Washington, DC, are confident that their hair from Lincoln is authentic. The museum traces its origins to the Civil War, when it was established as the Army Medical Museum and received soldiers' amputated body parts sent from the field for research."

— *The Press-Enterprise*, 2/8/01

"Along with the bullet that killed him, bony bits of Lincoln himself are exhibited at the National Museum of Health and Medicine. This collection of medical artifacts and oddities -

everything from early microscopes to an historic hairball - is located near Walter Reed Army Medical Center in northwest Washington."

— Cox News Service, 1/17/01

"What's Washington's best-kept secret? ... the National Museum of Health and Medicine.... With one of the oldest and most important medical collections in the country, the museum features myriad microscopes as well as occasional showings of such curiosities as John Wilkes Booth's spine."

— *Diversions*, January 2001

"At the National Museum of Health and Medicine, for instance, you can see the bullet that killed Abraham Lincoln, watch a live medicinal leech contract and stretch like a rubber band, or handle a dried lung. (Two lungs, actually, one of a smoker and one of a nonsmoker. They are very popular with school groups.)"

— *News Tribune* (Central Ill.), 1/3/01

Also, in 2001 the Museum's staff met with and/or was interviewed by media representatives for stories or documentaries on:

- *America's Treasures*
- C-Span
- Discovery Channel
- Discovery Health Channel
- Discoveryhealth.com
- Fox News Channel
- Granada TV
- Learning Channel
- History Channel
- National Geographic Channel
- *Ripley's Believe It or Not*
- Spiegel TV
- York Films of England

Museum Newsletter:

The Museum created a newsletter, "Flesh and Bones," which was published 8 times during 2001, ranging in size from a single sheet to 6 pages. In addition to internal distribution to the AFIP departments, the newsletter was distributed to the Museum's mailing list, which includes the media, schools, libraries, and visitors who have signed up to receive information by mail. It contains articles researched and written by the Museum staff about new exhibits, special programs, recently acquired artifacts, loans to other museums, etc.

The World Wide Web Site:

The Museum Public Affairs Office was principally involved in expanding content on the Museum Web site to include information about new temporary exhibits, such as "Research Matters: Environmental and Toxicological Effects of Arsenic" and "American Angels of Mercy: Dr. Anita Newcomb McGee's Pictorial Record of the Russo-Japanese War, 1904." In addition, the Museum worked with its Webmaster to post information about upcoming programs and events in a timely manner. The Museum also continued to pursue opportunities to be added to other museum and tourism Web sites. According to the Web site's traffic report, provided by Web Trends, the Web site is averaging more than 6,000 hits daily, with the average unique viewer looking at 5 different pages for more than 8 minutes during each visit to the Web site.

Sites linked to the Museum's Web site in 2001 include:

The Museum of the Rockies at Montana State University at <http://www.montana.edu/wwwmor/about/links.html>

The National Museum of Civil War Medicine in Frederick, Md, at www.civilwarmed.org/links.cfm

Pharma-Lexicon International in the United Kingdom at www.pharma-Lexicon.com

Special Forces Search Engine at www.sfahq.com/Memorials_and_Museums

US Army Military History Institute in Carlisle Barracks, Pa, at <http://carlisle-www.army.mil/USAMHI/OtherSites.html>

US Army Quartermaster Museum in Fort Lee, Va, at www.qmmuseum.lee.army.mil/links.html

US Army Warrant Officer Career Center at www.leavenworth.army.mil/wocc

UNESCO Archives Portal at

<http://www.unesco.org/webworld/portal> archives

Walter Reed Army Medical Center at www.wramc.amedd.army.mil

The Museum also ensures accurate and timely information is provided to online Web site information resources, such as:

DC Chamber of Commerce at http://www.dcchamber.org/visiting/pl_pt_museum.asp?whatpage=plan&whatpage2=point&whatpage3=museum

DC Heritage and Tourism Coalition at www.dcheritage.org/calendar2532/calendar.htm

DC Visitor Information at <http://www.dcvisit.com/calendar>

Museums of the World in Germany at www.museum.com

Global Museum at www.globalmuseum.org

DEPARTMENT OF PUBLIC PROGRAMS AND EXHIBITIONS

MISSION/ORGANIZATION

The division directs and coordinates operational and interpretive components of the Museum. This includes administration, exhibitions, public programs, educational tours, facilities use, and related activities. Division staff worked with governmental agencies, professional associations, museums, and individuals to develop interpretive strategies that promote greater public awareness of contemporary and historical perspectives on disease, public health, and health education.

STAFF

Vacant, Assistant Director, Public Programs and Exhibitions

Vacant, Supervisory Exhibits Specialist

Jeffrey Mitchell, MA, Visual Information Specialist

Janet Melson Burns, MA, Public Programs Coordinator

(A) Sandra V Saluke, MAT, Educator

(D) Jeanne Levine, Tour Program Manager

Public Programs Division:

Docents:

Sal Battiata, MD; Ed Beeman, MD; Catherine Bonomo; Merlin Brubaker, MD; Marina Bruner; Jacqueline Burton, MAT; Edward Byrde; Ashwini Chavan, MD; James DePersis; Peggy Garner; Jason Geiger, MD; Ira Green, MD; Marjorie Hughes, M.D.; Regina Hunt; Albert Jacobs, MEE; Marianna Jessee, MS, MGA; Carol Jorgensen; Gail Katz; Richard Lei, DDS; LaVerne Madancy, MA; Kay McMahon; Richard Mulvaney, MD; Sol Pargament; Colleen Pettis, MS; Anne Pollin; Edward Rea, MD; Anthony Rondello; Enid Rosen; Karen Sanders, MS; MSGT Christian Sepulveda; George Sharpe, MD; Stephen Schiaffino, PhD; Shen Sung, MD; Carolyn Whittenberg, MSN, Alan Winshel, MD; and Rose Zimmerman

VISITOR SERVICES

Attendance:

Attendance at the Museum and its programs for 2001 was *48,728. This number includes attendance to regular and special exhibitions, public programs, and regular Museum programs. Attendance also includes participants attending special events, such as receptions for organizations with missions related to those of the Museum, meetings or courses offered by other divisions of the AFIP, and meetings or training sessions. Other special audiences include students in off-site programs at which NMHM staff made significant proportions of presentations, and other public and professional venues.

*The September 11th terrorist attacks impacted our attendance this year. As a result of the attacks, WRAMC instituted ThreatCon Charlie, which restricted access to the post, from September 12th onward. This and other public concerns resulted in a decrease in attendance compared to the year 2000. The total attendance decreased by 14.9%. The number of tours decreased by 21.5%, with the number of visitors participating in the tour groups decreasing by 22.2%. Special events attendance decreased by 11%.

Public Programs:

Programming presented as part of the exhibition "Blood, Sweat and Saline: Combat Medicine in the Korean Conflict" included lectures in January, by Brigadier General Connie Slewitzke (Army Nurses Corp), of Women in Military Service for America Foundation, Inc, and Commander Frances Omori (US Navy), author of the book, *Quiet Heroes: Navy Nurses of the Korean War, 1950-1953*. Gen Slewitzke provided a historical perspective on the role of women in the Korean War, and Commander Omori highlighted the service, dedication, and professionalism of the United States Navy Nurses. In November 2001, Alan Hawk, manager of Historical Collections at the National Museum of Health and Medicine, presented a lecture on "Korean Conflict Medical Care: from Infections to Battlefield Wounds." His lecture included the following topics: designing modern hospitals in an underdeveloped country, the harsh Korean climate, infectious diseases, and medical technology and techniques that developed during this conflict.

Programs offered in conjunction with the exhibition "The Changing Face of Women's Health" included February's "You Can Survive: Going to Battle against Breast Cancer." This daylong symposium explored breast cancer and the various approaches taken by doctors and medical professionals to diagnose and treat it. Craig D. Schriver, MD (general surgeon), Daniel S. Jorgensen, MD (chief surgeon, plastic surgery), and Caroline Tuman, RN (head nurse & nurse case manager of the Clinical Breast Care Center) at Walter Reed Army Medical Center; Katherine Alley, MD (surgeon - medical director of Suburban Hospital Breast Center), Carolyn Hendricks, MD (oncologist), and Susan Abrams, MSW (clinical social worker) at Suburban Hospital; and Estelle Cook-Sampson, MD (radiologist) at Howard University covered topics that included early detection, the latest surgical treatment options, chemotherapy, eating healthily, and coping with the side effects of various treatments.

In March, the film *A Midwife's Tale* was presented. This 1997 film was based on the Pulitzer Prize-winning book of the same title by Laurel Thatcher Ulrich, which chronicles the interwoven stories of Martha Ballard, an 18th century American midwife/healer, and Ulrich, the 20th century historian who brought Ballard's diary to light. "A Day of Discovery and Prevention," a health fair cosponsored with Howard University Hospital, was held in April to encourage women, men, and children to check up on their health. Physicians and medical students from Howard presented talks throughout the day that took a closer look at diabetes, hypertension, healthy feet, eating well, and breast cancer.

"March On, Woman: Women's Health and Women in the Military" was a noontime lecture series, presented in June, that took a look at health and medical challenges for military women. Army LTC Elspeth Cameron Ritchie, MD, program director, Mental Health Policy and Women's Health Issues, Office of the Assistant Secretary of Defense, Health Affairs, provided an overview of mental health concerns of women in the military, as well as discussed issues of sexual trauma in the military. Army LTC Pauline Knapp, who commanded the 56th Evacuation Battalion at Ft Bragg, North Carolina, and whose current assignment is as assistant executive officer to the Army Surgeon General in Falls Church, Virginia, talked generally about women's health in the military, as well as her command of a hospital during a recent deployment to Bosnia. Navy CDR Curtis Ollayos, MD, MPH, a cytopathologist formerly in the Department of Cellular Pathology at the Armed Forces Institute of Pathology, discussed his research on "the relative risk for hpv-related cervical disease among beneficiaries of the military health care system."

A gallery talk was presented in conjunction with the exhibition "American Angels of Mercy: Dr. Anita Newcomb McGee's Pictorial Record of the Russo-Japanese War, 1904." Michael Rhode, archivist in the Museum's Otis Historical Archives and co-curator of the exhibit, lead the talk, including information about Dr. McGee's personal life, her professional accomplishments, and the purpose of her trip to Japan with a small group of nurses.

Other Museum programs included a popular Halloween program that featured the Museum's curator of Anatomical Collections, Paul Sledzik, discussing "Vampires: Truth or Fiction?" and Lenore Barbian, PhD, the assistant curator of Anatomical Collections, talking about "The Raw and the Cooked: Osteological Evidence for Prehistoric Cannibalism." The program also included "Forensics Mystery" workshops for children and adults. These workshops provided the participants with hands-on opportunities to study and analyze replicated skeletal remains to determine the identity of a missing person.

OTHER EVENTS

Collaboration:

The Museum collaborated for a second year with Dana Alliance for Brain Initiatives and the

National Institutes of Health in a 6-day celebration of "Brain Awareness Week 2001," in March. Because of the program's expansion, nearly 1,200 students from Washington, DC, Maryland, and Virginia had the opportunity to participate in lectures, activities, and opportunities to interact with local neuroscientists. Students were also able to see, touch, and learn all about the human brain. This year, neuroscientists from the National Institutes of Health, Georgetown University, Howard University, and National Aeronautics and Space Administration (NASA) partnered with NMHM and Dana to present lectures and hands-on activities for elementary, middle, and high school students. Participating neuroscientists included Steven Hyman, MD, director of the National Institute of Mental Health (NIMH); Enoch Gordis, MD, director of the National Institute on Alcohol Abuse and Alcoholism (NIAAA); Alan Leshner, PhD, director of the National Institute on Drug Abuse (NIDA); Audrey Penn, MD, deputy director of the National Institute of Neurological Disorders and Stroke (NINDS); Jacob Bloomberg, PhD, human life scientist at NASA Johnson Space Center; Benjamin R. Walker, PhD, visiting assistant professor, Psychology Department, Georgetown University; Chandan Vaidya, PhD, assistant professor, Psychology Department, Georgetown University; and LaSalle Leffal, MD, of Howard University School of Medicine and a member of the board of directors of the Dana Foundation. E. Fuller Torrey, MD, neuroscientist and director of the Stanley Foundation, spoke to a group of high school juniors and seniors.

The Museum collaborated with Health Pact, Inc, a local nonprofit company that assists community organizations by securing medical personnel, community groups, and medical supplies for health fairs, to present "National Health Awareness Kickoff," a series of programs held the first Saturday of each month to explore and identify health-awareness issues. Medical professionals provide in-depth information on the selected health issue of the month and provide free health screenings for Museum visitors interested in the state of their health. This program began in May and will continue throughout 2002.

Teacher Workshop/Open House:

Local area teachers and educators attended NMHM's annual program to learn how museum visits and resources can complement teaching and classroom learning. They also received a special preview of a guided tour school students receive at the Museum. Dr. Adrienne Noe, Museum Director; Jim Connor, assistant director of Collections; Paul Sledzik, curator of Anatomical Collections; Dr. Lenore Barbian, assistant curator of Anatomical Collections; Alan Hawk, manager of Historical Collections; Elizabeth Lockett, imaging specialist of the Human Developmental Anatomy Center; and Archie Fobbs, curator of Neuroanatomical Collections, provided information on their collections and programs, as well as presented various items in their collections for the teachers to handle.

Ongoing Programs:

The Museum offered weekend docent-led tours to walk-in visitors on the second and fourth Saturday of each month, at 1 p.m.

Tour Program:

Docents and staff at the Museum benefit from educational presentations made at monthly docent meetings. Speakers address topics such as military medicine and current research being conducted at AFIP. In October 2001, Kondi Wong, LtCol, USAF, MC, chief, Division of Neuromuscular Pathology, Department of Neuropathology and Ophthalmic Pathology at the AFIP, presented a talk on bovine spongiform encephalopathy (BSE), more commonly known as "mad cow disease." Also, Ted L. Hatfield, LtCol, USAF, BSC, chief, Division of Microbiology, Department of Infectious and Parasitic Diseases Pathology, spoke in December on anthrax, a current, upsetting topic in local, national, and international news. These lectures are part of the continuing education and training for docents.

In addition to the general tour, which introduces visitors to the highlights of the exhibition galleries, the following Curriculum Connection tours were offered during 2001: "The Human Body" and "To Bind up the Nation's Wounds: Medicine During the Civil War." The "Forensics Mystery" workshop continues to be a popular hands-on activity tour for school students and adults.

EXHIBITIONS DIVISION

Research Matters Exhibit:

The Research Matters exhibit program provides Museum visitors with a window into AFIP research activities. Visitors can also learn about the relevance of scientific research on their

lives, as well as the role US military medicine plays in world health. Piloted in 1996, the program occupies an exhibit case in the Human Body/Human Being exhibit gallery. This year's exhibit, "Research Matters: Environmental and Toxicological Effects of Arsenic," focuses on the arsenic investigations undertaken by the Biophysical Toxicology Branch of the AFIP's Division of Environmental Pathology. An artifact from the Office of the NY Medical Examiner is on display to illustrate arsenic as an intentional poison in a 1935 murder victim. The head and shoulders of a girl who died naturally in the late 1800s and was embalmed using an arsenic lacer formula illustrates the preservative powers of arsenic and calls attention to the possibility of it contaminating drinking water.

Temporary Exhibits:

The Museum's 1,430-sq-ft Silliphant Hall is dedicated to temporary installations. Exhibit programming for this space continues to be used to meet one of the Museum's exhibition missions of exploring the links between the humanities and the world of medicine. Museum staff installed 2 exhibits in Silliphant Hall during 2001, "The Changing Face of Women's Health" and "American Angels of Mercy: Dr. Anita Newcomb McGee's Pictorial Record of the Russo-Japanese War, 1904."

"The Changing Face of Women's Health" was an exhibition devoted exclusively to women's health issues. It featured interactive and multimedia techniques, companion programs, educator outreach materials, and a Web site. The interactive exhibit was organized into four central themes: detection, prevention, risk, and control. The theme of detection used breast disease to highlight the wide range of tests, screenings, and state-of-the-art technologies used to identify various conditions and diseases. The theme of prevention encouraged women to take charge of their own health, and weighed the trade-offs and benefits of preventive behaviors. Using osteoporosis as an example, the exhibit emphasized how habits formed in early adolescence can impact later health. The risk section focused on an individual's ability to assess and understand personal risk, illustrated through the model of cardiovascular disease, the Number 1 killer of women in the country. Finally, the exhibit dealt with control, presenting body image as it relates to health and probing complex issues regarding body types and what is considered normal, healthy, and desirable in our society.

"American Angels of Mercy: Dr. Anita Newcomb McGee's Pictorial Record of the Russo-Japanese War, 1904": Dr. McGee, an acting assistant surgeon in the US Army and founder of the US Army Nurse Corps, which she directed from 1898 to 1901, led a group of trained nurses to work in Japanese army hospitals for 6 months in 1904. As volunteers, McGee and her nurses were treated as guests of the Japanese nation, and greeted with "Welcome, American Angels of Mercy" banners in the streets. The exhibit focused on the half-year Dr. McGee and a party of nine nurses spent in Japan working side by side with Japanese nurses in the wards and operating rooms.

National History Day Program Exhibits:

The National History Day program encourages students to get excited about history, and learn about issues, ideas, people, and events that interest them. Each year, a broad theme is selected for the History Day contest. Competitions are initiated at a local level and proceed through state competitions on to the national competition, held annually in June, at the University of Maryland. Students participate in either Junior Division (grades 6 through 8) or Senior Division, (grades 9 through 12). Categories of competition include papers, performance, media presentation, or exhibit. Students can participate in groups or as individuals. The Museum has hosted displays of the exhibits during the summer since 1998. A 14-year-old from Cedar City, Utah, spent more than 8 months on her exhibit, "Civil War Battlefield Medicine." Replicas of medical instruments, fact sheets, and photographs of amputation victims were used to illustrate how bacterial diseases claimed the lives of many soldiers before the practice of sterilization was adopted. The project also chronicles the surgical techniques of battlefield medicine, the introduction of new medical instruments, and female nurses. Two high school honor students worked as a team to research and construct their exhibit, "Watson and Crick's Double Helix: A Frontier in Modern Science." Their project traced the progress of DNA research and highlighted the work of James Watson and Francis Crick. The project pointed out the many uses of DNA research, such as forensics, cloning, and the ethics behind DNA mapping and storing.

DEPARTMENT OF COLLECTIONS

MISSION

The Collections Department of the NMHM preserves materials representing the broad subject areas related to the history and practice of American medicine, military medicine, and modern medical and health issues and research. Each collecting division specializes in different media and subject areas. The division's responsibilities are to (1) provide the highest level of professional care for the NMHM collections and their associated documentation; (2) collect objects, specimens, and related archival materials deemed significant and relevant to the mission of the NMHM; and (3) support research, exhibits, and public programs through access of collections.

ANATOMICAL COLLECTIONS DIVISION

STAFF

Jim T. H. Connor, PhD, Assistant Director for Collections
 Lenore Barbian, PhD, Collections Manager
 Alan Hawk, BA, Collections Manager
 Donna Quist, BA, Assistant Collections Manager
 Paul Sledzik, MS, Curator, Anatomical Collections
 Michael Rhode, MA, Archivist
 Tabitha Oglesby, Assistant Archivist
 (A) Michael Simons, Registrar

MISSION

Anatomical Collections collects and preserves human and nonhuman medical, pathological, and anatomical specimens and associated materials documenting normal anatomy and the response to disease and injury.

CONSULTATION

The collection staff received 40 phone calls, 86 e-mails, and 18 letters requesting information on the collection or on topics related to the collections.

In 2001, the staff members of the Anatomical Collections served as consultants to several projects. Lenore Barbian and Paul Sledzik analyzed 2 forensic anthropology cases for the Office of the Chief Medical Examiner, Northern Virginia District. They supported the AFIP Forensic Dentistry course again this year by providing 2 days of forensic anthropology lab sessions.

Lenore Barbian and Paul Sledzik continued their consultation with the Warren Anatomical Museum at Harvard Medical School. The Warren has sought their advice on rebuilding its collections and contracted with the NMHM to conduct an inventory of their collection.

In compliance with 43 CFR 10.9, the Native American Graves Protection and Repatriation Act, 5 notices of inventory completion were published in the *Federal Register*.

Deployments:

Following the events of September 11, Paul Sledzik and Lenore Barbian responded with the USPHS Disaster Mortuary Operational Response Team to the crash of United 93 in Somerset County, Pennsylvania. Paul Sledzik served as the DMORT team commander and Barbian as a forensic anthropologist.

EDUCATION

Lenore Barbian and Paul Sledzik organized a program with the Fairfax County, Virginia, Department of Family Services Science in Residency Program to teach skeletal biology to K through 5th grade home-school students. They also provided lectures to a variety of visiting groups, including Montgomery County teacher training, several elementary and high school groups, and community college students.

May 14-18, 2001: The annual Forensic Anthropology course was held at USUHS. This year, 53 students attended. As in past years, the course evaluations proved the success of this course.

Offices/Committee Memberships:

1. Board member, Ellis Kerley Forensic Sciences Foundation, Paul Sledzik.

2. Advisory board member, US Soldier Biological and Chemical Command's Improved Response Program, mass fatality guide, Paul Sledzik.
3. Planning Group member/technical advisor, Mass Fatality Manual, National Center for Forensic Science/National Institutes of Justice, Paul Sledzik.
4. Forensic Advisory Committee member, National Center for Missing and Exploited Children, Paul Sledzik.

Exhibit Support:

Anatomical Collections staff assisted in the coordination and installation of the Women's Health exhibit, and provided curatorial assistance for "American Angels of Mercy: Dr. Anita Newcomb McGee's Pictorial Record of the Russo-Japanese War, 1904."

Public Affairs Report:

1. The Learning Channel, "Misdiagnosis of Death," 2001.
2. East Company/Fuji Television, segment on vampires for "Unbelievable," 2001.
3. The Learning Channel, Pangolin Productions, "Frozen in Time II: Mummies Forever," 2001.
4. *Washington Post*, June 24, 2001, "Ken Kipperman and the Table of Horrors," by Jeff Leen.
5. *Washington Post*, July 12, 2001, "Health Museum Visitors Beat Path to Union General's Leg Bones," by Linda Wheeler.

HISTORICAL COLLECTIONS DIVISION

The Division of Historical Collections acquires and preserves both artifacts of record and of note documenting the history of the practice of medicine, innovations in biomedical research and the evolution of medical technology. The collection emphasizes the role of the armed services of the United States, the United States Public Health Service, and the United States federal government as it relates to the above themes. The collection is made available for the education of medical professionals, Department of Defense personnel, historians, and the public through exhibits in the Museum, loans to other institutions, and individualized study.

CONSULTATION

Historical Collections staff responded to 83 research requests, most of them civilian. Seven research requests were from the military (5 Army and 2 Navy), including requests for information from the Navy Historical Center on issues concerning the handling of human remains from the *CSS Hunley* (the first submarine to sink a ship). Consultation was provided to Veterans Affairs regarding the establishment of a museum honoring veterans from New Jersey.

In response to the events of September 11, Historical Collections is actively collecting artifacts related to the medical aspect on the War on Terrorism. Among the items collected are samples of antibiotics used in the treatment of anthrax as well as instruments used in the identification of servicemembers and staff killed in the attack at the Pentagon.

Historical Collections acquired 327 artifacts in 2001. Acquisitions include medical instruments and uniforms belonging to CPT James J Smith, a medical intelligence officer with the OSS in Germany immediately following VE day, a collection of 176 anti-malarial drugs evaluated by Walter Reed Army Institute of Research and the National Institutes of Health between the 1940s and 1970s, a prototype miniature analytical thermal cycler instrument, a Lipshaw Model 1100 histological tissue processor, a comparison microscope used by the FBI, and a feminine protection field kit (FPFK) issued to women deployed in Somalia in 1994.

Historical Collections is attempting to collect a fibrin bandage for the collection. David Tuthill of the American Red Cross requested Alan Hawk's assistance in solving the problem of long-term storage of these bandages, which are extremely hydroscopic. Alan Hawk requested information from Museum conservators through the CONDISTLIST listserve and forwarded their responses to Mr. Tuthill.

Alan Hawk, a reservist with the US Navy, was activated from mid-November 2001, for the remainder of the year.

EDUCATION

Presentations and Seminars:

Historical Collections staff presented 5 lectures, provided 2 poster sessions, and prepared 2 exhibits in 2001. One exhibit is about AFIP research on arsenic and the other, with Otis Historical Archives, about Anita McGee, US Army nurse in Japan during the Russo-Japanese War. One of the poster sessions was produced to support the historian of the US Army Office of the Surgeon General. It will be a part of a series of poster sessions based the exhibit "Blood Sweat and Saline, Military Medicine during the Korean Conflict," and will be displayed in the lobby of the Surgeon General's Office.

Official Trips (funding agency in parentheses):

April 2001, American Association of the History of Medicine, Charleston, SC, J Connor (ARP), A Hawk (AFIP).

Public Affairs Reports:

1. Alan Hawk was interviewed in "Lessons from the Battlefield, Advances Made During War Have Changed the Face of Modern Medicine," *Daily Herald*, November 5, 2001.
2. Museum artifacts relating to orthopedics were featured in Discovery Channel's TV documentary "21st Century Medicine: Human Hardware."

OTIS HISTORICAL ARCHIVES

RESEARCH

2001 was a productive year for lectures and publications, but the largest effort was put into the production of an exhibit on Anita McGee's Russo-Japanese War photographs.

Research Requests:

The Archives received approximately 200 requests for information this year, excluding medical museum and AFIP requests, visitors, or referrals to other institutions. Requests for information dropped significantly after the September 11 terrorist attacks.

Researchers were affiliated with AFIP and WRAMC, including the Director's Office and WRAMC Vaccine Healthcare Center. External users included Academic Press, Ames Middle School, Army Historical Foundation, Big House Productions, Bunda Stutz & DeWitt, Burnett Howard Productions, California Newsreel's "The Human Race, Center for Research — Allied POWs under Japan," Connections Productions, Connell Foley Library, DoD Health Affairs, Department of History/Albright College, Exxon Mobil Biomedical Sciences Inc, Forest Glen Commonwealth, Galen Press, *Geo Magazine*, George Washington University, Greystone Communications, HICFA (Port West), Hakala Communications, *Handbook of the North American Indian National Museum Natural History*, Harvard Business School, History Channel, Hoggard Films / National Geographic Society, Kirchoff/Wohlberg, MPH Entertainment, Max Planck Institute for History of Science, McGuire Reeder, Metropolitan Museum of Art, Office of Military Health Systems, Philadelphia University, Roja Productions, Simpson Thatcher & Bartlett, US Army, University of Virginia Center for Bioethics, University of North Carolina, United States Naval Shipbuilding Museum, and the *Washington Post*. International requests for photographs from Italy and Peru.

Acquisitions:

The Archives had few new collections this year. New material acquired included Klionsky's pathology records, the Saga Hospital register from the atomic bombings of Japan, an editorial cartoon on AIDS by Swann, and several small photograph collections, films, and books. The McCormick Collection of material on Pelam Company consisted mostly of three-dimensional instruments for Historical Collections, but records of the company and schematics of the instruments came to the Archives. Many small donations of books, posters, pamphlets, trade literature, and photographs were added to the overall collection. Museum records from staff members were added to the Archives. Book donations included 2 on medical numismatics and orthopedic surgery in Puerto Rico from a donor in Puerto Rico and *Health seekers in Arizona* from Phoenix Baptist Medical Museum.

The OHA deaccessioned New York Police Department missing person photographs to New York City Municipal Archives in the fall.

Collections Management:

Computerized cataloguing on the collection level has continued in the shelf inventory.

Cataloguing for the General Medical Products Information Collection, medical ephemera, new contributed photographs, audiovisual collection, AFIP historical files, and others was done. Research continued into a comprehensive computer catalogue for the entire Museum, and a system was recommended for purchase. Over 200 substantial requests for information were handled, frequently regarding sensitive topics. Several collections were arranged and described, with finding aids. Oglesby processed the following collections and wrote finding aids for them: Zimmerman, Irely, Klionsky, Kirschenbaum, Goler, and Kavruck. A significant Archives presence, including the *Guide to the Collections of the Museum* on the Web site, continues to bring in researchers. The McGee Collection was recatalogued to make it useful for the new exhibit; research was done at the Library of Congress on the photographs as well.

Projects and Other Activities:

The main project of the year was the Russo-Japanese War photograph exhibit. Rhode and Connor developed and ran the exhibit production, and successfully opened the exhibit on time with a very short lead-time. Donor Fred Sharf assisted the Museum to produce a catalogue of the exhibit, ending in a donation of \$15,000 worth of posters, postcards, and catalogues. The OHA continues to update its significant presence on the Internet, including the *Guide to the Collections of the Museum*, which continues to bring in researchers. The World War I influenza page is especially popular with researchers. Rhode served during the year on the AFIP's Institutional Review and the Transition Senate. Rhode continued to serve this year on the Museum's Administrative Committee. In the summer, Oglesby participated in the Museum's Career Day. The Museum loaned the Thomas Eakins painting of John Hill Brinton to the Philadelphia Museum of Art and the Louvre. We provided a small level of support for the 2001 ARP calendar. We provided conservation recommendations and duplicated a historic photograph album for the WRAMC command; a set of the duplicate pictures was retained by the OHA. A proposal to do a session on the Museum in 2002 for the American Association for the History of Medicine was accepted for the Kansas City meeting. Rhode also has had a paper, "'An Enduring Monument': Philadelphia's Contributions to *The Medical & Surgical History of the War of the Rebellion* (1870-1888)," accepted for the Society for the History of Authorship, Reading & Publishing 2002 meeting in London. Helen N. Jacobs, granddaughter of Henry Hobart Nichols, one of the Museum's Civil War era wood engravings, visited the Museum and saw his work. The OHA's Halon fire suppression system released twice as a result of construction elsewhere in the South Wing. The OHA will close to undergo renovations in 2002, to have asbestos abatement and the system replaced with a modern one.

Official Trip:

April 2001, American Association for the History of Medicine, Charleston, SC, M Rhode (AFIP).

Exhibit:

Rhode M (curator and project manager) and Connor JTH, et al. "American Angels of Mercy: Dr. Anita Newcomb McGee's Pictorial Record of the Russo-Japanese War, 1904" exhibit, National Museum of Health and Medicine, Washington, DC, October 1, 2000- February 28, 2001.

DEPARTMENT OF RESEARCH COLLECTIONS

MISSION

To acquire, preserve, and encourage the use of major research collections for all qualified members of the research community. The collections are made available for research and education by appointment, and via Web site. Continued stimulation of new hypothesis-driven research is a top priority.

ORGANIZATION

The Research Collections consist of 2 divisions: the Human Developmental Anatomy Center and the Neuroanatomy Collections. (The Human Developmental Anatomy Center has entered its 5th year of funding by the National Institutes of Child Health and Human Development.)

opment, the National Center for Research Resources, and the Office of Research on Women's Health. The Neuroanatomy Collections continue to be the recipient of National Science Foundation funding for electronic collections development.)

HUMAN DEVELOPMENTAL ANATOMY CENTER (HDAC)

STAFF

Adrianne Noe, PhD, Director
Elizabeth C. Lockett, Imaging Specialist
William F. Discher, Imaging Specialist
Kumudini Mayur, PhD, Imaging Scientist

Student Interns:

Andrew Wasson, Emory University
David Brooks, George Mason University
Ryan Landoll, Science and Engineering Program, George Washington University
Richard Sinn, Thomas Wooton High School
Andrew Chen, Thomas Wooton High School
Peter Choi, Thomas Wooton High School

Collections:

Human Developmental Anatomy Center
Carnegie Institution Human Embryological Collection
Cornell Human and Comparative Embryology Collection
Hooker Humphrey Collection
The Elizabeth Maplesden Ramsey Collection
George Sedgewick Minot Embryological Collection
Gaenssler Pulmonary Pathology Collection

Tours:

The Anatomy Center hosted 10 tours in 2001. Visiting military VIPs, school tours, professional organizations, and AFIP staff have all come through the center.

Workshops:

HDAC staff presented a workshop in 3-dimensional computer modeling for disadvantaged high school girls, St Anne Institute, Albany, NY. We participated in the open house for high school science teachers hosted by the Museum.

The 2001 Embryology Imaging and Education Conference was hosted by the Human Developmental Anatomy Center. There were a total of 60 attendees and speakers; 3 students and 1 high school biology teacher attended. Our goals to foster collaboration between teachers and researchers were met. Mr. David Rhodes, a biology teacher from Brother Martin School in New Orleans, La, and Professor Ray Gasser, LSUMC, were able to combine their common interests. Mr. Rhodes students are provided the opportunity to intern in the Imaging Laboratory at Louisiana State University Health Sciences Center.

There were 12 speakers on a variety of topics, ranging from a history of medical illustration to the use of laser confocal imaging to determine blood-flow speed and patterns in the developing zebra fish heart. There were 3 round table discussions. The Textbooks and Technology Panel featured lively discussion on what "new" information should be included and what "old" information should be excluded from the texts. The Open Source Genetics and Large Screen Labs discussions were also well-attended, and prompted continuing discussion after the conference. The possibilities of using an IMAX theater format to teach embryology seemed especially appealing to those instructors wishing to expand their audiences beyond medical school students.

The Elizabeth Ramsey Dinner speaker, Betty Ann Hotltzman-Kevles, presented her study of 20th century medical images, and provided an interpretive take on the portrayal of women and pregnancy in popular culture.

This biannual conference offered by the Human Developmental Anatomy Center, National Museum of Health and Medicine, of the Armed Forces Institute of Pathology, was sponsored in part by the AACA, and received additional support from the American Registry of Pathology, the American Association of Anatomists, Museum staff, and Eolas Technologies

RESEARCH

Fourteen visiting researchers used the collections, for a total of 29 days on 9 visits, in 2001. Research topics covered the developing heart, maxillofacial development, urogenital development, and neuroanatomy. AFIP staff requested information on pediatric pathology from the collection. The Center had 14 requests for images from the collection and 6 requests for electronic data sets, requiring 27 staff days to process. Three-dimensional CGI models of embryos were made. A package of images of early human development was created and sent to various researchers and publications, including the *New York Times* Science Section, Wiley and Son, and several Web-based parenting and women's issues Internet sites.

Exhibitions:

The Carnegie Institute of Washington, DC, requested a loan of several objects and images from the Center relating to Elizabeth Ramsey, MD.

Grants:

1. "Human Embryology Digital Library and Support Tools" (phase two), Part of the Next Generation Internet Project, funded by the National Library of Medicine.
2. "Human Embryology on DVD," Louisiana State University Medical Center, funded by the National Library of Medicine.

Collaborative Projects:

The Human Developmental Anatomy Center continued its collaborative project with George Mason University, as it received second-year, second-phase funding of the grant "Human Embryology Digital Library and Support Tools." This grant is part of a next generation Internet project, funded by the National Library of Medicine. The goal is to develop prototype databases and other technologies to enable collaboration among multiple, distributed researchers, and to make progress towards advanced clinical and educational goals in human embryology.

In addition, the Center is in collaboration with the Louisiana State University Medical Center (LSUMC) on an educational project, "Human Embryo Sections on DVDs for Education." The objective of this project is to provide students, educators, and researchers accurate, inexpensive, and accessible visual information on human embryonic development. Aligned digital images of the serial sections of the best normal human embryos in the Carnegie Collection will be made available on computer disks (DVDs).

The Center continued its collaborative modeling project with the Congenital Heart Research Center at Oregon Health Sciences University. Anatomix, Inc, and the University of California, Davis, continued to work with William Discher to model the developing human. The University of Illinois at Chicago continued a collaboration to produce a series of animations depicting normal human development, using models generated at the Center. These will be viewed via Web site for teaching and patient information.

William Discher is participating as an advisor in modeling techniques on a grant with the Neuroanatomy Collections, "Magnetic Resonance Imaging of Dolphin, Porpoise, and Whale Brains."

Continuing Education:

Kumudini Mayur, PhD, Johns Hopkins University, Gene Sequencing and Analysis, American Registry of Pathology

NEUROANATOMY COLLECTIONS DIVISION

MISSION

The Neuroanatomical Division encourages the use of its resources by all qualified members of the research community, as part of its role within the Armed Forces Institute of Pathology and the National Museum of Health and Medicine. This division collects and preserves valuable artifacts of neuroanatomy, and strives to become the premier repository in the United States for collections focusing on neuroanatomy in the embryo, the adult human, as well as other selected species. Continued stimulation of new hypothesis-driven research is a top priority

STAFF

Archibald J. Fobbs, Curator

Surinder Sandhu, NSF Project Technician

Collaborating Researchers:

John I. Johnson, PhD, Department of Anatomy, Michigan State University

Wally I. Welker, PhD, Department of Physiology, University of Wisconsin-Madison

Volunteer:

Stephen Schiaffino, PhD

Student Interns:

Vikas Patel, Long Reach High School, Md, Anjali Nana, Paint Branch High School, Md,
Aaron Basch River Hill High School, Md

Mike D'Abreu, Science and Engineering Program, George Washington University

Pratik Patel, Science and Engineering Program, George Washington University

Neuroanatomical Collections:

Yakovlev-Haleem Neuropathology and Development Collection

Blackburn-Newmann Collection

Lindenburg Forensic Pathology Collection

Welker Comparative Neuroanatomy Collection

Rubenstein Collection

Adolph Meyer Neuropathology and Development Collection

Isabel Lackhard Comparative Neuroanatomy Collection

The Publos Anatomical Collection

Web site:

The University of Wisconsin-Madison and Michigan State University implemented, and supervise, the Web site. The information presented on the site reflects the mission of the Museum. Financial support for this Web site is provided by a grant from the National Science Foundation. In 2001, collection inquiries via the Web site increased 15 %. Requests for collection images, scheduling visits to the Collections Division, and to the Museum have all increased as a result of the site. The site receives about 105 hits per day from all over the world. Educators report it is a useful curriculum development resource for science projects and for answering structural and functional questions about the brain. The general public is able to use the site to get information about the brain.

Conservation:

The fluid-preserved tissue conservation for the Yakovlev-Haleem Collection and the Welker Comparative Neuroanatomy Collection continues. Conservation procedures are performed on a regular basis, and fluids are changed as needed. In an effort to improve the conservation efforts, the fluid-preserved tissue of the Yakovlev-Haleem Collection is being transferred to the Museum's off-site storage facility in Gaithersburg, Maryland.

The Blackburn-Neumann Collection fluid-preserved tissue evaluation and conservation effort has been completed. As a result of this survey, the condition of the tissue, the type and condition of the fluid, and the condition of the containers were improved. This information has been used to develop a statement of work and a standard operating procedure for implementation of a complete conservation reconditioning of all fluid-preserved tissue specimens in the collection. Paper documents of the Blackburn-Neumann Collections were moved from the Department of Neuropathology and Ophthalmic Pathology and safely housed in map cases in the Otis Historical Archives. This process is ongoing.

Collection staff are currently identifying conservation needs and examining Welker Comparative Neuroanatomy Collection slides. This information will be used to develop a conservation plan.

The Yakovlev-Haleem Library is being organized in its new bookcases. As the reorganization is taking place, the condition of the contents is being evaluated. This process continues.

Equipment:

A new server has been added to handle file transport process applications, image acquisition, data storage, brain specimen reconstruction, and digital graphic imaging. This equipment is available to researchers and student interns.

RESEARCH

Researchers visiting the Neuroanatomical Collections increased by 10%. The number of researchers visiting the collections during 2001 totaled 200. The total number of research days

in 2001 was 220. Despite the events of September 11, 2001, visits by researchers remain constant. Many visiting researchers obtained collection information via the Internet, and staff membership in neuroscience organizations. Elementary and secondary educators have become increasingly interested in using the collection for classroom instruction. The National Science Foundation has identified the collaboration between the National Museum of Health and Medicine/AFIP, the University of Wisconsin-Madison, and Michigan State University as one of the model projects it has funded.

In 2001, the number of students taking part in various research activities increased by 15%. The Neuroanatomical Collections were instrumental in providing valuable educational experiences for students from Paint Branch High School in Silver Spring, Maryland, Hebrew Day Elementary School in Silver Spring, Maryland, Holmes Middle School in Alexandria, in Virginia, the Congressional Page School in Washington, DC, and DeMatha Catholic High School, Hyattsville, Maryland. Howard County Technology Magnet Applications and Research Laboratory Program has partnered with Neuroanatomical Collections and the Human Developmental Anatomy Center to promote internships for high school students of Howard County. This relationship provides research opportunities for students attending the county's technical magnet programs at Long Reach High School in Columbia and River Hill High School in Clarksville, Maryland.

Collaboration with Wally Welker, PhD, of the University of Wisconsin-Madison and John I. Johnson, PhD, of Michigan State University is in the 7th year, and is grant funded by the National Science Foundation, which provides a project technician to assist the curator with research and development projects. This grant has been identified by the National Science Foundation as one of its most productive projects.

Manuel Casanova, MD, professor of psychiatry and neurology, Veterans Affairs Medical Center, Augusta, Georgia, and Daniel Buxhoevedan, MD, assistant professor, Medical College of Georgia, are using the collection in their research on quantitative comparative morphology of cell columns in humans and nonhuman primate brains. The goal of this project is to compare organization of cell columns in the temporal region of humans to that of primates.

Lori Marino, PhD, an associate professor of biology in the Department of Biology, Emory University, in Atlanta, Georgia, is collaborating with Neuroanatomy staff and Human Developmental staff on a research project titled "Magnetic Resonance Imaging (MRI) of Dolphin, Porpoise, and Whale Brains." The goal is to produce an electronic brain atlas, for the Internet, complete with 3-dimensional models. The atlas will be designed for both education and research.

Neuroanatomical Collections staff and Kondi Wong, MD, a neuropathologist at AFIP, are working on an Alzheimer's project to reconstruct and quantitatively analyze Alzheimer's cases and normal cases from the Yakovlev-Haleem Collection.

Outreach:

The Neuroanatomy Collections Division of the National Museum of Health and Medicine/AFIP, the Dana Alliance for Brain Initiatives, and the National Institutes of Health collaborated on a Brain Awareness Program. Students from Virginia, Maryland, and the District of Columbia were invited to hear featured speakers from NIH and participate in interactive demonstrations. They also viewed artifacts from the Museum's brain collections. A total of 400 students attended the 2-day program.

Extensive alphanumeric data from Museum collection specimens are also used worldwide via Internet presentation. Interns with the Neuroanatomy Collections Division are able to gain experience with this technique using software such as ANALYZE. The NSF project technician, along with the interns, devised a mathematical solution to using measurements and the histological slides. Data and images from Museum collection specimens are made available for use at all educational levels. This is done via the Internet or physical diskettes. Interns gain valuable experience.

Magnetic resonance imaging (MRI) scans provide volumetrically and spatially accurate data about the internal architecture of brains of rare or difficult-to-process species of animals. The spatial data can be analyzed in 3-dimensional models. When student interns obtain the scans, using software such as MAYA and SURFDRIVER, they are able to commence 3-dimensional modeling. The project has provided opportunities for training interns in the use of data storage, electronic imaging, and the acquisition of neuroanatomical data, including 3-dimensional surface render modeling. Ten students have received this type of training from the curator, as well as the NSF project technician.

Tours:

The Neuroanatomy Center hosted approximately 55 tours during 2001.

Loans:

Yakovlev-Haleem Collection Library usage increased by 15 %. The major source of the increase was students taking the AFIP Neuropathology Review Course, AFIP Department of Neuropathology and Ophthalmic Pathology staff members, and visiting researchers.

Transfers:

Archival documents found in the Yakovlev-Haleem Collection Library were transferred to the Otis Historical Archives.

PRESENTATIONS

1. February 2001: Seattle, Washington, American Society of Forensic Odontology, "DMORT forensic operations and the future of disaster victim identification," PS Sledzik.
2. February 2001: Howard County, Md, ARL, Applied Research, Demonstration of the Human Brain and Its Functions, AJ Fobbs.
3. March 2001: Washington, DC, National Museum of Health and Medicine, AFIP, "Introduction to the midwife's tale," J Connor.
4. March 13-17, 2001: Seattle, Wash, Museums and the Web Conference, "The digital embryo library and collaborative tools," presented by EC Lockett, Authored by EC Lockett, A Noe, M Doyle, A Rajasekar, M Holterman, C Paidas, M Pullen, J Pentecost.
5. March 2001: Washington, DC, National Museum of Health and Medicine/AFIP, Brain Awareness Week, AJ Fobbs, A Noe.
6. March 2001: Washington, DC, National Museum of Health and Medicine/AFIP, Presidential Awards Program, AJ Fobbs, JI Johnson.
7. April 2001: Alexandria, Va, Manor House Programs, Green Spring Gardens, "Hospitals on wheels during the Civil War, the US Army hospital trains of the Army of the Potomac and the Army of Virginia," A Hawk.
8. May 2001: Washington, DC, Capital Hill Restoration Society, "Medicine during the Civil War" (poster session), A Hawk.
9. May 2001: Washington, DC, National Museum of Health and Medicine, AFIP, "Research matters, arsenic" (exhibit), J Connor.
10. June 2002: Washington, DC, Washington Society for the History of Medicine, "Pictures of an institution: the continuing reinvention of the modern hospital," J Connor.
11. July 2001: Washington DC, National Museum of Health and Medicine/AFIP, National Youth Leadership Forum on Medicine Careers in Science, AJ Fobbs.
12. July 30-31, 2001: National Library of Medicine, Bethesda, Md, State of the Project Demonstration, "The digital embryo library and collaborative tools," presented by M Pullen, A Noe, W Lennon, R Moore, M Doyle, J Pentecost, EC Lockett, M Holterman, C Paidas. Authored by M Pullen, A Noe, M Doyle, J Pentecost, EC Lockett, M Holterman, C Paidas.
13. August 17, 2001: Washington, DC, George Washington University, Science And Engineering Program Final Presentations, "Automated translation of foreign language journals from the Carnegie Collection," presented by R Landoll, Authored by R Landoll, A Wasson, EC Lockett.
14. September 2001: Falls Church, Va, Office of the Surgeon General, US Army, "Hospitalization and medical evacuation in the Korean Conflict, 1950-1953" (poster session), A Hawk.
15. October 2001: Washington, DC, National Museum of Health and Medicine, AFIP, "American Angel of Mercy" (exhibit), J Connor, A Hawk.
16. October 2001: NMHM/AFIP, "Vampires: the truth behind the legend," PS Sledzik.
17. October 2001: NMHM/AFIP, "The raw and the cooked: osteological evidence for prehistoric cannibalism," L Barbian.
18. October 2001: Washington, DC, Fourth Annual Archives Fair at the Smithsonian Institution's Ripley Center, M Rhode, T Oglesby.
19. October 2001: Richmond, Va, "On collecting Dr. Arthur Vorwald's asbestosis records: a cautionary tale," lecture for Documenting Adverse Reactions: Doctors, Patients, and

- Lawyers in the Archives session, Mid-Atlantic Regional Archives Conference, M Rhode.
20. October 2001: Washington DC, NMHM/AFIP, Science in the Classroom Teachers Workshop, AJ Fobbs.
 21. November 15, 2001: Denver, Colo, National Science Foundation Teleconference Site Arlington, Va, and Chicago Ill, Super Computing 2001, "The digital embryo library and collaboratory tools," presented via high-speed Internet connection and video-conferencing by W Lennon, A Noe, M Pullen, M Doyle, J Pentecost. Authored by M Pullen, A Noe, M Doyle, J Pentecost, EC Lockett, M Holterman, C Paidas.
 22. November 2001: Washington, DC, NMHM/AFIP, "Korean Conflict medical care: from infections to battlefield wounds," A Hawk.
 23. November 2001: Toronto, Canada, "Doing good: the life of Toronto's General Hospital," J Connor.
 24. November 2001: New Orleans, La, Society for Neuroscience, Web site access to Museum specimens for use in neuroscience classrooms and laboratories, JI Johnson, JA Morris, PM Gorayski, SE Sheppard, RA Carloni, BM Winn, WI Welker, CL Dizack, KL Graeme, AJ Fobbs.
 25. December 2001: Washington, DC, Gallery talk on "American Angels of Mercy" for Washington Society for the History of Medicine, National Museum of Health and Medicine, M Rhode.
 26. December 2001: Washington, DC, Gallery talk on "American Angels of Mercy" for DC Picture Group and general public, National Museum of Health and Medicine, M Rhode.

PUBLICATIONS

1. Barbian L, Berndt L. When your insides are out: museum visitor perceptions of displays of human anatomy. In: Williams E, ed. *BAR S934 2001: Human Remains: Conservation, Retrieval and Analysis*. Proceedings of a conference held November 7-11, 1999, in Williamsburg, Virginia. Oxford, England: British Archaeological Reports; 2001:257-266.
2. Rhode M. The other battle of WWI. *Hogan's Alley*. 2001;9:105-109.
3. Sledzik PS. A career takes form: Ellis Kerley's tenure at the Armed Forces Institute of Pathology (1957-1966). *J Forensic Sci*. 2001;46:777-779.
4. Sledzik PS, Rodriguez WC. Damnum fatale: The fate of human remains in mass disasters. In: Haglund W, Sorg M, eds. *Advances in Forensic Taphonomy: Method, Theory, and Archaeological Perspectives*. Boca Raton, Fla: CRC Press; 2001:321-330.
5. Sledzik PS, Barbian L. From privates to presidents: past and present memoirs from the Anatomical Collections of the National Museum of Health and Medicine. In: Williams E, ed. *BAR S934 2001: Human Remains: Conservation, Retrieval and Analysis*. Proceedings of a conference held November 7-11, 1999, in Williamsburg, Virginia. Oxford, England: British Archaeological Reports; 2001:227-235.
6. Sharf FA, Rhode M, Connor JTH. *American Angels of Mercy: Dr. Anita Newcomb McGee's Pictorial Record of the Russo-Japanese War, 1904*. Newbury, Mass: Newburyport Press; 2001.